

IN THE CLAIMS

1. (previously presented) For an intervertebral disc replacement device having a flange and at least one bone screw hole for receipt therethrough of at least one bone screw and at least one mounting hole, a retaining device for said at least one bone screw, comprising:

a threaded attachment member for threaded engagement with said at least one mounting hole in said flange of said intervertebral disc replacement device; and

a head flange defined by an outer perimeter, said head flange extending from said threaded attachment member, wherein said head flange is in part abuttingly received against a side of said flange of said intervertebral disc replacement device and said outer perimeter is partially received over a portion of said at least one bone screw to prevent said at least one bone screw from backing out of said at least one bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device,

wherein said head flange includes a solid portion and at least one stress relief area wholly contained within the confines of and not extending through said outer perimeter so that the at least one stress relief area is bounded on all lateral sides by the solid portion, the at least one stress relief located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member.

Claim 2 (canceled)

3. (original) A retaining device as recited in claim 1, wherein said head flange is of a convex construction from an orientation taken in relation to said threaded attachment member.

Claim 4 (canceled)

5. (previously presented) A retaining device as recited in claim 3, said head flange flexing in such a manner so as to cause said convex construction thereof to become flatter when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said flatter condition of said head flange causes said threaded attachment member to exert pressure along its said threaded engagement with said at least one mounting hole so as to prevent said threaded attachment member from backing out of said at least one mounting hole.

6. (original) A retaining device as recited in claim 5, said at least one bone screw hole comprising first and second bone screw holes and said at least one bone screw comprising first and second bone screws.

7. (previously presented) A retaining device as recited in claim 6, wherein said outer perimeter is partially received over portions of said first and second bone screws to prevent said first and second bone screws from backing out of said first and second bone screw holes, respectively, when said retaining device is fully engaged with said intervertebral disc replacement device.

Claims 8 (canceled)

9. (previously presented) A retaining device as recited in claim 1, wherein the at least one stress relief area is circular.

10. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes two stress relief areas.

11. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes three stress relief areas.

12. (previously presented) A retaining device as recited in claim 1, wherein said head flange includes four stress relief areas.

13. (previously presented) A retaining device as recited in claim 12, wherein the stress relief areas are circular.

Claims 14-18 (canceled)

19. (previously presented) For an intervertebral disc replacement device having a flange and at least one bone screw hole for receipt therethrough of at least one bone screw and at least one mounting hole, a retaining device for said at least one bone screw, comprising:

a threaded attachment member for threaded engagement with said at least one mounting hole in said flange of said intervertebral disc replacement device; and

a head flange defined by an outer perimeter, said head flange extending from said threaded attachment member, wherein said head flange is in part abuttingly received against a side of said flange of said intervertebral disc replacement device and said outer perimeter is partially received over a portion of said at least one bone screw to prevent said at least one bone screw from backing out of said at least one bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device,

wherein said head flange includes a solid portion and at least one circular stress relief area wholly contained within the confines of and not extending through said outer perimeter so that the at least one stress relief area is completely surrounded by the solid portion, the at least one stress relief located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member.

20. (currently amended) A retaining device as recited in claim ~~20~~19, wherein said head flange is of a convex construction from an orientation taken in relation to said threaded attachment member, said head flange flexing in such a manner so

as to cause said convex construction thereof to become flatter when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said flatter condition of said head flange causes said threaded attachment member to exert pressure along its said threaded engagement with said at least one mounting hole so as to prevent said threaded attachment member from backing out of said at least one mounting hole.

21. (currently amended) A retaining device as recited in claim ~~21~~20, wherein said head flange includes four circular stress relief areas.

22. (new) For an intervertebral disc replacement device having a flange and at least one bone screw hole for receipt therethrough of at least one bone screw and at least one mounting hole, a retaining device for said at least one bone screw, comprising:

a threaded attachment member for threaded engagement with said at least one mounting hole in said flange of said intervertebral disc replacement device; and

a head flange defined by an outer perimeter, said head flange extending from said threaded attachment member and being of a convex construction from an orientation taken in relation to said threaded attachment member, wherein said head flange is in part abuttingly received against a side of said flange of said intervertebral disc replacement device and said outer perimeter is partially received over a portion of said at least one bone screw to prevent said at least one bone screw from backing out of said at least one bone screw hole when said retaining device is fully engaged with said intervertebral disc replacement device,

wherein said head flange includes a solid portion and four circular stress relief areas wholly contained within the confines of and not extending through said outer perimeter so

that the four stress relief areas are bounded on all lateral sides by the solid portion, the four stress relief areas located on said head flange at a point other than a central point of said head flange and providing for said head flange to be at least somewhat flexible in a substantially axial direction of said threaded attachment member, said head flange flexing in such a manner so as to cause said convex construction thereof to become flatter when said retaining device is fully engaged with said intervertebral disc replacement device, wherein said flatter condition of said head flange causes said threaded attachment member to exert pressure along its said threaded engagement with said at least one mounting hole so as to prevent said threaded attachment member from backing out of said at least one mounting hole.

23. (new) A retaining device as recited in claim 22, wherein said at least one bone screw hole comprising first and second bone screw holes and said at least one bone screw comprising first and second bone screws.

24. (new) A retaining device as recited in claim 23, wherein said outer perimeter is partially received over portions of said first and second bone screws to prevent said first and second bone screws from backing out of said first and second bone screw holes, respectively, when said retaining device is fully engaged with said intervertebral disc replacement device.